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**DOCKET NO. D-2012-006 CP-1**

**DELAWARE RIVER BASIN COMMISSION**

**Special Protection Waters**

**SUNY Delhi Golf Course  
Surface Water Withdrawal and Flood Fringe Special Permit  
Town of Delhi, Delaware County, New York**

**PROCEEDINGS**

This docket is issued in response to an Application submitted by SUNY Delhi to the Delaware River Basin Commission (DRBC or Commission) on February 21, 2012 for an allocation of surface water and review of a surface water withdrawal project (Application).

The Application was reviewed for inclusion in the Comprehensive Plan and for approval under Section 3.8 of the *Delaware River Basin Compact*. The Delaware County Planning Department has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on December 5, 2012.

**A. DESCRIPTION**

1. **Purpose.** The purpose of this project is for approval of a surface water withdrawal project to supply up to 7.75 mgm of treated domestic wastewater effluent from the Village of Delhi wastewater treatment plant to the applicant's irrigation holding lagoon for turf irrigation on the SUNY Delhi Golf Course. This docket also approves the existing interim withdrawal of 6.975 mgm of surface water from the Little Delaware River for turf irrigation until the alternate water supply project is completed.

2. **Location.** The project is located in the West Branch Delaware River and Little Delaware River Watersheds, within the drainage area to the section of the non-tidal Delaware River known as the Upper Delaware, which is designated as Special Protection Waters, in the Town of Delhi, Delaware County, New York. The West Branch Delaware River and Little Delaware River are classified by the NYSDEC as Class C streams supporting trout (T).

Specific location information has been withheld for security reasons.

3. **Area Served.** Withdrawals of treated sewage treatment effluent will only be utilized for turf grass irrigation purposes on the SUNY Delhi Golf Course. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. **Physical features.**

a. **Design criteria.** SUNY Delhi currently draws water from the Little Delaware River (LDR), a tributary to the West Branch Delaware River (WBDR), via three (3) existing pumps to irrigate its 18 hole public golf course. The total existing pump capacity is approximately 1,200 gpm. During the irrigation season, the typical daily water usage is 125,000 gallons, but has been as high as 225,000 gallons. The golf course normally irrigates for approximately 5-hours per day from April until mid-September. Total acreage on the golf course that requires irrigation is 32 acres of fairways, 2 acres of tees, and 2.5 acres of greens.

The NYSDEC issued a consent order for SUNY Delhi to discontinue withdrawal from the Little Delaware River and locate a new water source for irrigation. It was ultimately determined that the new source of water for golf course irrigation would be a portion of the treated effluent from the Village of Delhi Wastewater Treatment Plant (WWTP).

SUNY Delhi has proposed to divert treated effluent from the Village of Delhi (Village) WWTP via a new 8-inch diameter pipe installed under the WBDR with horizontal directional drilling to a 20,000 square foot area irrigation holding lagoon. The holding lagoon is to be constructed in an open field on the southern side of the river within the 100-year floodplain, although outside of the floodway in the flood fringe. The holding lagoon will be excavated downward approximately 5-feet below existing grade, and the excavated materials will be used to construct the berm around the lagoon. The top of the berm will be approximately 6-feet above the surrounding ground elevation, and will have 2-feet of freeboard above the 100-year flood elevation of the West Branch of the Delaware River. A minimum of 200,000 gpd of treated effluent will be diverted from the WWTP to the holding lagoon. The basin is designed to allow this water to infiltrate through the bottom of the holding lagoon. During irrigation months, it is anticipated that up to an additional 125,000 gallons to 225,000 gallons of water will be needed daily for use at the golf course. Golf course personnel indicated that future improvements to the irrigation system could result in a total usage of between 175,000 gpd and 250,000 gpd. The allocation of 7.75 mgm should be sufficient to meet the future demands of SUNY Delhi.

Two (2) 400-gpm pumps with variable speed drives will draw water from the holding lagoon and convey it, via an 8-inch force main, to the existing irrigation system piping. The current design includes provisions for SUNY Delhi to add an additional 400-gpm pump to the system in the future, if needed. Once the project is complete, the existing intake pipes to the Little Delaware River, and the existing pump house and pumps will be decommissioned and removed.

b. **Facilities.** The existing and proposed surface water intakes have the following characteristics:

INTAKE NO.	WITHDRAWAL WATER BODY	PUMP CAPACITY	7Q10 FLOW AT USGS GAGE NO. 1422500 (CFS)	YEAR CONSTRUCTED
Little Delaware River Intake	Little Delaware River	1,200 gpm	2.4	n/a
Lagoon	Lagoon	3 x 400 gpm	n/a	Spring 2013

All withdrawals are metered.

Prior to entering the holding lagoon, the water will be treated at the Village of Delhi WWTP which includes a micro-screen and grit chamber, an extended aeration secondary treatment system, a flocculation basin, a secondary clarifier, a dual sand microfiltration unit with chlorination at the head of the filters, and dechlor is used as needed at the discharge of the filters. The Village of Delhi WWTP was most recently approved by DRBC Docket No. D-2001-033 CP-2 on March 3, 2010. The NYSDEC issued its most recent SPDES Permit No. NY0020265 on January 19, 2010 for this treatment facility. All sampling of effluent required as part of the SPDES is performed prior to redirecting effluent to the holding lagoon.

The lagoon berm will be constructed 2 feet above the 100-year flood elevation.

Potable water supply to the SUNY Delhi Golf Course is supplied by the Village of Delhi. The Village of Delhi water system was approved by the Commission on November 5, 1975 in Docket No. D-1975-070 CP-1.

c. **Other.** Wastewater from the golf course is conveyed to the Village of Delhi WWTP sewage treatment facility most recently approved by DRBC Docket No. D-2001-033 CP-2 on March 3, 2010. NYSDEC issued its most recent SPDES Permit No. NY0020265 on January 19, 2010 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

d. **Cost.** The overall cost of this project is estimated to be \$2,300,000.

e. **Relationship to the Comprehensive Plan.** The project was not previously included in the Comprehensive Plan.

## B. FINDINGS

### Special Protection Waters

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC *Water Quality Regulations* (WQR), designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as

SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for Special Protection Waters designation and clarity on definitions and terms were updated for the entire program.

Article 3.10.3A.2.e.1). and 2). of the *Water Quality Regulations, Administrative Manual - Part III*, states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of Special Protection Waters. The project is located in Special Protection Waters; however, as the project is located in the drainage area to the Cannonsville Reservoir, the non-point source pollution control plan requirement is not applicable as described in Article 3.10.3A.2.e.1)(c) of the *Water Quality Regulations, Administrative Manual-Part III*.

#### **Existing Surface Water Withdrawal and Passby Flow**

The existing surface water withdrawal from the Little Delaware River may continue to be used until construction of the proposed alternate water supply source for golf course irrigation is completed. The United States Geologic Survey (USGS) Gage No. 0142250 located approximately 1.4 miles upstream from the withdrawal location, shall be used to monitor passby flow for the withdrawal in the interim period. The estimated Q7-10 flow at USGS Gage No. 01422500 calculated from the period of record from 1998 to 2011 is 2.4 cfs (1.6 mgd).

Withdrawals from Little Delaware River for golf course irrigation must not result in the instantaneous stream flow in Little Delaware River to be less than 2.4 cfs (1.6 mgd) as measured at USGS Gage No. 01422500. Withdrawal rates shall be reduced as appropriate to ensure that the withdrawal rate would not reduce the instantaneous flow below 2.4 cfs as measured at USGS Gage No.01422500. Whenever the instantaneous stream flow in the Little Delaware River is 2.4 cfs (1.6 mgd) or less than this amount at USGS Gage No.01422500, no withdrawal shall be made and the entire natural stream flow must be allowed to pass. The pumps shall be shut off, not permitting any additional withdrawals from the Little Delaware River until the instantaneous stream flow as measured at USGS Gage No.01422500 is at least 5.1 cfs as described in Condition C.II.e. in the DECISION Section.

#### **Flood Plain Encroachment**

The location of the proposed holding lagoon is within the flood fringe of the WBDR. The existing ground surface in the vicinity of the holding lagoon is 1,333 feet above mean sea level (AMSL). The 100-year flood elevation is approximately 1,337 feet AMSL. The holding lagoon will be excavated downward approximately 5-feet below existing grade, and the excavated

materials will be used as berms around the lagoon. The holding lagoon has been designed with a top of berm elevation of 1,339 feet AMSL to provide 2 feet of freeboard for protection from the 100-year flood. The building which will house the pump equipment will be installed at the top of berm to also provide flood protection to the structure.

Chazen Companies, the engineer for SUNY Delhi has performed a hydraulic analysis, to determine the impact of the placement of the lagoon and berms within the Floodplain. Analysis of the impact of the lagoon indicates that a water surface elevation increase of 0.38 feet occurs at the cross section upstream of the location of the proposed lagoon. However, the area affected by the increase is property owned either by the State of New York or the Village of Delhi. All the land affected is fallow or used for farming. Based on the land use in the area affected, Chazen has determined that there is no adverse impact due to the proposed action. The results of the hydraulic analysis have been submitted to the NYSDEC -Region 4 for review and acceptance.

Potential benefits of the project include: a) The elimination of water withdrawals from the Little Delaware River by replacing the water supply for golf course irrigation with treated effluent from the Village of Delhi WWTP; b) Reducing phosphorus loading to the West Branch Delaware River.

The project is designed to conform to the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

The DRBC estimates that the project withdrawals, used for the purpose of turf grass irrigation on the SUNY Delhi Golf Course, result in a consumptive use of 90 percent of the total water use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

### **C. DECISION**

I. Effective on the approval date for Docket No. D-2012-006 CP-1, the project and the appurtenant facilities described in the Section A “Physical features” shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A “Physical features” are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the NYSDEC and the United States Army Core of Engineers (USACE) in their respective permits issued for the project, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s. The docket holder shall register with and report to the NYSDEC all surface and ground water sources described in

this docket in accordance with the NYSDEC Regulations *ECL Article 15 Title 33 - § 15-3301 Water Withdrawal Reporting*.

b. The lagoon withdrawal and operational records shall be available at all times for inspection by the DRBC.

c. The withdrawal shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

d. During any month, the withdrawal from Little Delaware River surface water source shall not exceed 6.975 million gallons subject to Conditions C.II.e. and f. below. During any month, the withdrawal from the Holding Lagoon surface water source shall not exceed 7.75 million gallons. Withdrawals shall not be made above the maximum instantaneous rate and monthly allocation as indicated below:

INTAKE	MAXIMUM INSTANTANEOUS RATE	MONTHLY ALLOCATION
Little Delaware River	1,200 gpm	6.975 mgm
Holding Lagoon	1,600 gpm	7.75 mgm

e. Withdrawals from Little Delaware River for golf course irrigation must not result in the instantaneous stream flow in Little Delaware River to be less than 2.4 cfs (1.6 mgd) as measured at USGS Gage No. 01422500. Withdrawal rates shall be reduced as appropriate to ensure that the withdrawal rate would not reduce the instantaneous flow below 2.4 cfs as measured at USGS Gage No.01422500. Whenever the instantaneous stream flow in the Little Delaware River is 2.4 cfs (1.6 mgd) or less than this amount at USGS Gage No.01422500, no withdrawal shall be made and the entire natural stream flow must be allowed to pass. The pumps shall be shut off, not permitting any additional withdrawals from the Little Delaware River until the instantaneous stream flow as measured at USGS Gage No.01422500 is at least 5.1 cfs.

f. Withdrawals from the Little Delaware River shall permanently cease upon completion of construction and operation of the proposed alternate water supply source for golf course irrigation. All infrastructure related to the Little Delaware River withdrawal shall be removed. The docket holder shall notify the Commission in writing within 30 days of completion of the proposed project and shall remove all infrastructure at the former withdrawal site within 60 days of operation of the alternate water supply.

g. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement (“Statement”) signed by the docket holder’s professional engineer for the project. The Statement must (a) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; (b) report the project’s final construction cost as such cost is defined by the

project review fee schedule in effect at the time application was made; and (c) indicate the date on which the project was (or is to be) placed in operation. In the event that the final project cost exceeds the estimated cost used by the applicant to calculate the DRBC project review fee, the statement must also include (d) the amount of any outstanding balance owed for DRBC review. Such outstanding balance will equal the difference between the fee paid to the Commission and the fee calculated on the basis of the project's final cost, using the formula and definition of "project cost" set forth in the DRBC's project review fee schedule in effect at the time application was made.

h. This docket approval shall expire three years from date below unless prior thereto the docket holder has commenced operation of the subject project or has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval.

i. The project withdrawals shall be metered with an automatic continuous recording device that measures to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted if maintenance of the 5 percent performance is not technically feasible or economically practicable. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the NYSDEC annually and shall be available at any time to the Commission if requested by the Executive Director.

j. The docket holder shall implement to the satisfaction of the NYSDEC, the continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the NYSDEC on the actions taken pursuant to this program and the impact of those actions as requested by the NYSDEC.

k. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

l. The docket holder shall implement its Water Conservation Plan as approved by NYSDEC, and shall report to the NYSDEC on actions taken pursuant to this program and the impact of those actions as requested by the NYSDEC.

m. The docket holder shall implement to the satisfaction of the NYSDEC, a drought or other water supply emergency plan.

n. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams from any new facilities or repair related construction.

o. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

p. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond

those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

q. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below (or the later date established by an extension that has been timely requested and approved), the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

r. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder in order to insure the proper control, use and management of the water resources of the Basin.

s. If the monitoring required herein, or any other data or information demonstrates that the operation of this project significantly affects or interferes with any domestic or other existing uses of ground or surface water, or if the docket holder receives a complaint by any existing ground or surface water users within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by any ground or surface users within the zone of influence of the withdrawal, and unless excused by the Executive Director, shall investigate such complaints. The docket holder should direct phone call notifications of potential well or surface water interference or complaints of interference to the DRBC Project Review Section at 609-883-9500, extension 216. Oral notification must always be followed up in writing directed to the Executive Director. In addition, the docket holder shall provide written notification to all potentially impacted users of wells or surface water supplies of the docket holder's responsibilities under this condition. Any ground or surface water user which is substantially adversely affected, rendered dry or otherwise diminished as a result of the docket holder's project withdrawal, shall be repaired, replaced or otherwise mitigated at the expense of the docket holder. A report of investigation and/or mitigation plan prepared by a hydrologist shall be submitted to the Executive Director as soon as practicable. The Executive Director shall make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and the extent of appropriate mitigation measures, if required.

t. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.



u. For the duration of any drought emergency declared by either New York or the Commission, water service or use by the docket holder pursuant to this approval shall be subject to the prohibition of those nonessential uses specified by the Governor of New York to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

v. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

**BY THE COMMISSION**

**APPROVAL DATE:**

**EXPIRATION DATE: December 5, 2022**